

Still Alive With Sir Clive!

# ZXir QLive Alive!

The Timex/Sinclair North American User Groups Newsletter

Volume 7 No. 1

Spring '87

Chairman

Donald S. Lambert

Auburn, IN

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ESTABLISHED 1981

THE TIMEX/SINCLAIR NORTHAMERICAN USER GROUPS NEWSLETTER

# T/SNUG Information

We wish to support the following platforms: T2400/1, T4-1800 Spectrum, T4-2000, 248 and QL. If you have any questions about any of these five Sinclair contact the

## Chairman

Chief/Motivator

Donald S. Lambert (T2400)

## Vice-Chairmen

### Tape & FLO PD Library

D G Smith

413 Stone St.

Jonestown, PA 15960

814 515-6080

### Z88 Library

Dave Bennett (T4T200)

329 Walton St. East

Lancaster, PA 17645

717 754-7330

### ZX-81 PD Tape Library

Ed Snow

2138 Churchill Downs Cir

Orlando, FL 32823

407 383-3124

### RMG Enterprises

Rad Cowen (T2400)

14784 S Quail Grove Cir

Orlando, FL 32837

305 635-7484 FAX 305 635-4316

### TS-2000

Rad Hargrove (T2400)

18000 Collins St.

Delta, BC V4C 7B4 Canada

604 593-2819

### QL PD Library

John Donaldson (T4T200)

815 Foxwood Cir

Omaha, NE 68134-1631

708 335-0147

### AERCO & Z80 Sinclair

Kath Watson

4124 Anthony Dr.

Mt. Clearmont, NE 68008

### BBS ——— GATOR ———

Bob Swager (T4T200)

613 Parkside Cir

Stonerwood, IL 60107-1647

815 431-7937 Fax 815 376-8088

Any of the above can also be reached by e-mail through the  
MEMOC BBS 847 632-6388

## ZXir QLive ALive!

is the newsletter of T2SNUG, the T2400/Sinclair North American User Group, providing news and software support to the T24 community in a **VOLUME** of five newsletters per year, beginning with the Spring (black) issue.

T2SNUG's main goal is to preserve and encourage the use of Sinclair computers by providing an open forum for the exchange of knowledge, building and maintaining of software libraries. Providing vendors, repair service and members with free ad space.

It is the user groups and individual subscribers, rather than the vendors, that provide the primary support for this newsletter. Vendors and developers receive the newsletter free of charge, though contribution from vendors and user groups is gratefully accepted. Please support our vendors and service providers whenever possible.

If you have a problem or you have solved a problem, please share it with the rest of us. No problem will be considered unimportant.

## Editor/Treasurer LarkKn PD Library

You can keep T2SNUG alive by donating contributions of \$12 for one **VOLUME** made payable to Abad Kahale. Send check to:

### ABAD KAHALE

3340 S FLAT ROCK CT

SIERRA VISTA AZ 85835-6874

320 378-3434

Back copies are available for \$8.75 each postpaid.

## Treasury Note\$

As of March 3, 1997, we have a balance of \$1234.63

## Article Contributions

Send in your articles by tape or disk and your inputs too—

DONALD LAMBERT

1301 KIBLINGER PL

ALBURN IN 46706-3010

Phone 219 925-1372

By hardcopy or modem (300-144) to:  
Abad Kahale

E-mail: [KALAH@compuserve.com](mailto:KALAH@compuserve.com)

## GATOR'S TWISTED PAIR

To better inform the Sinclair Community, four Sinclair a day BBSs are now provided to serve you. You are encouraged to exchange mail and use the file sections of these boards. Banners and ads are available to all.

Q-Box BBS

818 242-9478

Utica, Michigan

SCC Server

Joan Marano

<http://members.tripod.com/~helpnet/>

SCC BBS

520 882-6388

Tucson, Arizona

MMOC BBS

847 632-6388

Arlington Heights, Illinois

If you know the Internet E-Mail address of a Sinclair user, but do not have access to Internet, simply address your E-Mail to: GATOR. Register on the 24-hour MMOC BBS and include the name and E-mail address of the user you wish to reach. Then check the MMOC BBS from time to time if you expect a reply.

We encourage you to exchange mail and comments to the UPLOAD section. Call and register using your first, last name and phone number along with a password you won't forget. **Write It Down!** Do not try to do anything else at this time.

When you call in the next time, you will have Level 5 security and be able to enjoy full user privileges. The BBS has smaller sections called conferences: Select "1" for "Line a Conference" Select "TRMOC" to get into the Sinclair Section. The mail you then send will only be from other T24 users. Use extensions AND the asterisk. ADD for ads and NEWS for news when UPLOADing.

For help, contact the SYSCOP, Bob Swager, by leaving a message, mail, E-Mail or phone.  
Bob...Swager<[CSWAG@attglobal.net](mailto:CSWAG@attglobal.net)>

# Input/Output

by *Abel Kahale*

To: Abel Kahale <1034573440@compuserve.com>

You know, SOC 888 is really unique. Didn't plan it that way, but that's the way it's worked out. For, it runs OLI as 3868.

This means two things. First, it is arguably The Only 888 In The World, operated completely by a 3868, with the assistance of L&KDS and four-dac drives plus RAMDISK. Also, Dallas SmartWatch, Beutler 1999 large printer, TS-2040 small printer, Larry Kenny's own Z8088 serial port, and Larry's mother's SG212 by Texas Instruments.

Well, this is surely not as unusual 3868! But, with the assistance of that host lot of minuscule computer peripherals, I can take my of those little 3868 boards in my office here, and secure the world of the Internet.

Come that's what they mean by saying, "It's An Open System."

David Lasser Tucson, AZ

From: Jose Moreno <jma\_jr@infocision.com>  
Subject: SOC 888

To: Abel Kahale <1034573440@compuserve.com>, Bill Cable <bcable@infocision.com>, CATS News-Letter <catnews@jag22.sprintlink.com>, Cleo Computing Club <100023477@compuserve.com>, FWD Computing <chrisnash@infocision.com>, Jon Kacmar <177343.1127@compuserve.com>, Peter Lebert <p.lebert@it-online.de>, Tim Swenson <swenson@project.com>

Greetings everyone!!!

This is a mass-mailing that I have created from all the Internet users that subscribe to ZQA/ I am writing to inform you of the following. — I have read the latest ZQA, and in there it states that SOC 888 is down for good. This is true. It went down due to lack of user support. I barely earned any calls during the full one year of it being up. That's the bad news, the good news is that SOC may now be found on the Internet at the following address: <http://members.tripod.com/~belpress/>.

Go there and check it out. — I have been working very hard to make it a very good website. Tell all your Sinclair friends on the Internet. — Spread the word. — Thank you

**Jose Moreno SOC Server**

First, the ZXr QLine Alive! newsletter looks as professional as any user group newsletter I've seen. You should be commended — but you probably haven't been. If my past experience as a local user group newsletter editor is any indication, "balance" is about the best compliment you get as an editor. A rock-throwing teacher and heading toward your house would probably be an indication that things are not going well.

Anyway, the newsletter says "Be-Up Time" has arrived again (where do the years go??), and considering the value of TRIMUX in general and the newsletter in particular, I am more than glad to make my yearly monetary contribution.

As to non-monetary contributions, I saw the "Clue" article printed in the last issue, so I assume the LarKen article is coming up. I was hoping if it have a bit more information on the byte-back parallel printer problem by publication time, but I've no definitive answer yet. I may have a further review coming up for submission, I'll send a e-mail if I get one put together.

Keep up the good work!

Old Parish Beggs, OK.

Thank you Bill! I am sure that ZQA/ members do appreciate the work and effort. The only thing that is missing is someone close by besides myself to proof-read ZQA/ before publishing.

I recently reported the Long Island Sinclair User's Group (LI-SUG) and heard about the newsletter produced quarterly by ZQr Chris Alford. I wrote to Donald Lambert for information, and he suggested that I send you my contribution for a year's subscription to the newsletter and the key-roll list which apparently accompanies the newsletter. My checks are enclosed.

I understand that the subscription year starts with the Spring issue due out March, which means that I have missed the Winter issue due any day now if not already published. Please advise if I can get a copy of the Winter issue by sending an additional check in an amount you may suggest.

I work mainly with the Timex Sinclair Model 360 with a Spectrum adapter in the cartridge slot.

Seymour H. Miller Forest Hills, NY

## Welcome to our Community

*A copy has been mailed to you*

Dear Abel,

Here is the article on 888's and the Internet. It is too long for MSCLITE, so it is coming to you in two parts without CLand lists C1, F1new, M1RGE the two and print them out first, followed by the lists.

OK, a lot of characters are missing from my screen, so I'll SEND them again, this time in HALF DUPLEX. And, be sure to tell me if it comes out better, as I won't be able to see a thing!

David Lasser

Half-Duplex did not work

Want to pass on the problem with LarKen. IdeaCom IT IS INTERMITTENT — the word 'duplex'!

Suppose we want to enter a long message into a 888 or an Email into the Internet. Then, we go offline and

properly the letter as a text file. Entering the BBS or the Internet, we "proved" to upload the ASCII file, containing the message, right?

Well, everything goes fine, until the host-computer system makes its first disc access. Then, our BBS system pauses, waiting for a signal from the host to resume.

The problem is, that that signal rarely comes, or, more likely, MacComm fails to respond.

That is a nasty problem, since it appears to be a defect in the machine CODE, both MODCOMM CS and MAXCOMM C1.

The system just enters the CODE, in order to effect ASCII transfer, and never escapes, to finish ASCII transfer!

HAPPY NEW YEAR

David Lasso

Tucson, AZ



From Francisco Editor

I just mailed you a load of articles, all for (maybe) next issue of Q&A.

There are five articles, which BOTH Gary Lussert and Danny ART discuss. In addition, I had to COPY the Mini Memo for Danny's ART on the 3040.

Hope that's OK.

Also wrote you a letter about a Jeng 3040 listing.

Hope it copies well, as the topic is fascinating. BOTH a listing of a Post Masters Dangler and a study 1988 BASIC and the way it stores and uses the values of PI. It is a study in the cool ways of optimizing 1988 BASIC code!

KEEP ON TIMING ~~~~~

The following groups still meet, those who still publish newsletters are indicated by @:

(See the Ads section for addresses)

Don Lambert (JSTUC)

318-818 1373

Phil Kamburidis (CATUC) @

603-364-6713

Red Humphreys (VRUC)

18044 Collins Pl.

Delta BC V4C T6B-Canada

Harvey East (JST) @

George Chambers (TTSUC)

14 Redstone Ct.

Scarborough, ON Canada

Rory Washington (CATS) @

361-369-1467

Gary Ganger (DMA)

(NIESQUUC) @

617-893-3671

Jim Kaster (CCTUC) @

E-mail: JTK@T33@compuserve.com

## Top 10 Ways MicroSoft Would Change The Auto Business

10 New cars would require everyone to have the most best car.

9 We would all have to switch to MicroSoft gas.

8 The US government would be forced to rebuild all of the roads for MicroSoft cars, they will be able to drive on the old roads, but they will run very slowly.

7 The oil, alternator, gas and engine warning lights would be replaced by a single "General Car Fault" light.

6 Sun Microsystems would make a car that was computerized, twice as reliable and five times as fast, but would run on only 3% of the roads. Intel Motors would make an engine with twice the horsepower but will only run 10% faster.

5 You would be constantly pressured to upgrade your car.

4 You would only have one person in the car at a time, unless you bought a CamX, CamY or Cam ZT — but then you would have to buy ten more seats and a new engine.

3 Occasionally, your car would die for NO apparent reason and you would have to restart. Strangely, you would just accept this as normal.

2 Every time the lines of the road were repainted, you would have to buy a new car.

1 People would get mad about the new features of the latest MicroSoft car, forgetting that these same features had been available from other car makers for years!

Attribution: According to one source (Thomas Ford (thomasf@ibm.accent.com) - this list was originally published in either the "AutoWeek" or "Car and Driver" magazines.

To Jay (Sharpard)

A guy walks into a bar and sits down. He starts dialing numbers on his hand like a telephone. The bartender walks over and tells him that it's a very tough neighborhood and he doesn't need any trouble here. The guy says, "You don't understand. I'm very hi-tech. I had a phone installed in my hand because I was tired of carrying my old phone." The bartender says, "Oh, yeah? Prove it."

The guy dials up a number and gives his hand to the

bartender who talks into the hand and cracks on a conversation and then hangs up. "That's incredible," says the bartender. "I'd have never believed it!" "Yeah," says the guy, "I can keep in touch with my broker, my wife, you name it. By the way, where is the man's room?"

The bartender points to the door in the corner. The guy goes in and doesn't come out for the longest time. Facing the worst, given the tough neighborhood, the bartender goes in and finds the guy with his pants off, spread-eagle up against the wall, and a roll of toilet paper up his butt.

"Oh my God! Did they rub you? How much did they get?" The guy turns and says, "No, no, I'm just waiting for a fix!" (I'd bet he's got a hand-held scanner too. "W")

As for the printer interface, you can use drivers I've written before or UPDATE! and I thank you NTW. One was for a DMF 120, the other for an EPSON. I use TIMACHINE to turn it into machine code.

What baffles me is that drivers for your printers are all available for the IBM sometimes, I believe on the DOS disk you got with your machine. Let's get these questions answered for me. (platform IBM - Right)

What are you trying to print and can't, a picture? Just text? From what application? Just exactly what is the model printer you are having trouble with? As for ribbons, I know a place - and they are cheap! ---CLATER---

To: Bob\_Swoger-CENG100@earthlink.net  
From: JShepard-Bashcode@worldnet.att.net@INTERNET  
on Tue, Jan 14, 1997 8:08  
Subject: m7 pet driver

No, I've never written my own printer driver per se. The DOS has a printer driver where I believe you are altering it's driver. For special needs if you know the codes, such as unclutter ON = 77, AS, I & status = 27, 31, etc. I never felt that was all that is in a driver. I thought it involved being able to write machine code. I would like to get the Caspary to work with my PC (IBM).

I have no idea if the control codes are part of writing a driver, but that won't keep me from building a moment on the subject. My manual for the Osmind does not list the control codes. However, an '83 someone in either IBM or Data-Link wrote quite a bit about the South-Corbin Fusion 80, which led me to purchase one. (The ribbons are now hard to find). The manual for it has four pages control codes with references to their name, dec & hex equivalents, e.g., use w = dec 27, 37 = 1b-3f which is turning off or on Enhanced mode.

That is all that has been on my mind for a while that I thought "Chicago Bob" would help me, and I'll not bother you for a while so our phone time can cool off. Thank you so ---CLATER---

Dear Abbot,

It is time for me to move. I have received a lot of help from a lot of people in getting my TS-1000 going again. I have also received help in finding upgrades for it. I have been very busy the last couple of months with a new job, college and moving. I will answer everyone that has

contacted me, it might take me a few more weeks before I am completely sorted out.

In looking at the back pages, I see a few notices in volumes 1 and 2 that I would like to read. Do you still have a few copies of those? I am interested in all four issues of vol. 1 & 2.

Once again Thanks to everyone, I will answer you all.

Kim Harlin Fresno CA

Burning the candle at both ends? How well I know - my college days. Any of the book issues are available for \$2.75 each. Wish you luck.

## BELIEVE IT OR NOT

### State Residency Application

(1) Name \_\_\_\_\_

( ) Billy Bob

( ) Billy Joe

( ) Billy Ray

( ) Billy Sue

( ) Billy Mac

( ) Billy Jack

(Check appropriate box)

(2) Age \_\_\_\_\_

(3) Sex \_\_\_\_\_ M \_\_\_\_\_ F \_\_\_\_\_ N/A

(4) Shoe Size \_\_\_\_\_ Left \_\_\_\_\_ Right

(5) Occupation \_\_\_\_\_

( ) Farmer

( ) Mechanic

( ) Hair Dresser

( ) Un-employed

(6) Spouse's Name \_\_\_\_\_

Relationship with spouse \_\_\_\_\_

( ) Sister

( ) Brother

( ) Aunt

( ) Uncle

( ) Cousin

( ) Mother

( ) Father

( ) Son

( ) Daughter

( ) Pet

(7) Number of children living in household \_\_\_\_\_

Number that are yours \_\_\_\_\_

(8) Mother's Name \_\_\_\_\_

(9) Father's Name \_\_\_\_\_ (If not sure, leave blank)

(10) Education 1 2 3 4 (Circle highest grade completed)

(11) Do you ( ) own or ( ) rent your mobile home?

(12) Vehicle Information.

\_\_\_\_ Total number of vehicles you own

\_\_\_\_ Number of vehicles that still work

\_\_\_\_ Number of vehicles in front yard

\_\_\_\_ Number of vehicles in back yard

\_\_\_\_ Number of vehicles on current blocks

(13) Where you own and where you keep them

\_\_\_\_ truck

\_\_\_\_ bedroom

\_\_\_\_ bathroom

\_\_\_\_ kitchen

\_\_\_\_ shed

- (14) Model and year of your pickup: 194\_\_\_\_  
 (15) Do you have a gun with?  
     ( ) Yes ( ) No - If no please explain: \_\_\_\_\_  
 (16) Newspaper/magazine you subscribe to:  
     ( ) The National Enquirer  
     ( ) The Globe  
     ( ) Soap Opera Digest  
     ( ) Ruler and Shotgun  
 (17) Spellings  
     \_\_\_\_ Number of times you've seen a UFO  
     \_\_\_\_ Number of times you've seen Elvis  
     \_\_\_\_ Number of times you've seen Elvis in a UFO  
 (18) How often do you bathe  
     ( ) Weekly  
     ( ) Monthly  
     ( ) Not Applicable  
 (19) Color of teeth  
     ( ) Yellow  
     ( ) Brownish-Yellow  
     ( ) Brown  
     ( ) Black  
     ( ) None

According to one source (Bumash@bluewin.ch.ch)

Hello Albed,

As I mentioned previously, I was hoping to update my Letterix article for the newsletter (if I learned anything about the flyte-flick printer interface problem prior to publication). I'm not sure where your next publication was, but I've concluded that a post-mortem is involved, and hence the problem is not solvable with some minor tinkering to the flyte-flick printer driver, as I had hoped I've ended up buying an AERCO-printer interface for use with my Letterix.

The revised article is attached, if you can make use of it.

Incidentally, do you have

**SUPERDRIVER** for the AERCO, or for TS1800 printer driver for it?

Glenn Parrish  
 Route 1 Box 705  
 Beggs, OK

73430 1548 @compuserve.com

Sorry Gl, but I don't have either of them may be one of our members can lend a hand!!

Dear Gl, sorry,

By now you will have heard that S.J.P.D. SOFTWARE will be closing on 30th January 1997. This was due to me suffering another prolonged restricted disc consistently known as a slipped disc. This means that I will have to undergo surgery to have the disc removed. This is the second time to suffer as I had the same problem 13 years ago and had surgery then. Getting at a computer has become very painful.

In a depressive mood, I decided to close down S.J.P.D. SOFTWARE. I contacted my building society and gave notice of closure of the S.J.P.D. SOFTWARE account. I also rang all my suppliers and closed down the accounts with them. I also contacted the editors of QUANTA & QL

TODAY to give them notice of closure of S.J.P.D. SOFTWARE.

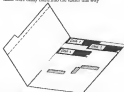
I received a lot of letters/emails of support and expressions of sadness of the closure of S.J.P.D. SOFTWARE. These and a more positive mood as to my medical condition has prompted me to reconsider the closure. I am now very pleased to announce that I will continue to supply Q.L. Public Domain, Shareware & Freeware. However as stated, I have now closed down all S.J.P.D. SOFTWARE accounts, so I will offer those services under my own name. This means that all Cheques must be made payable to "S. JOHNSON". Any orders received after 30th January 1997 with cheques payable to S.J.P.D. SOFTWARE will be RETURNED. As I have new banking arrangements I will NOT be able to accept Euro-Cheques, sorry for any inconvenience. One may note that Euro-Cheques have always caused a problem.

All the disks continue with the same disk numbers. I will slowly remove all references to S.J.P.D. SOFTWARE from the disks.

S. Johnson.

## Did You Know?

I recently needed to send several 5 1/4 inch floppy disks in the mail. I had a over single disk mailers and some disk boxes available, but neither of these quite fitted the bill. The solution was to take a manila folder and trim it so it would fit in a standard 5 1/4 by 11 envelope that I had available. Then it was a simple matter to tape the disk sleeves to it. The tape must should be some kind that can be removed without tearing the sleeve. You can put disks on both sides of the inside of the folder if needed. Thirteen disks were easily fitted into the folder that way.



The disks were staggered so that they wouldn't catch on one another, and an accompanying letter was placed inside the folder before mailing.

Les Cottrell  
 108 River Hts. Dr.  
 Cocoa, FL 32922-6634

Hi, Albed

As you can tell I'm at a different email address. George went and upgraded to a new MDC computer. I am now be emailed at Furo. Please send all future email messages to me at the new address, although I'm trying to

got my T2000 up and going. Do you still have and spend a Times-Sensar?

Would you please resend your last message to me at the new address, the message with Lester's article? I'd appreciate it if you could. The last time you sent that message we were still using George's old computer and the printer was malfunctioning. Half of the message you sent was gibberish when it printed on the old printer.

Rob Sawyer is sending me in my attempt to utilize my T2000 modem. The last time we talked my system was not downloading properly. I don't know what's wrong with my new modem - but Rob is trying to figure it out.

I'll be giving him a call this weekend and hopefully he'll have the problem figured out. I'm enjoying computer more and more.

Well, that's all for now. Take care and be in touch. Your friend,

*David.schneider@times-sensar.com*

**Jeff DeCourteny Albuquerque, NM**

*Sorry for the delay, but I was out of town for a while visiting my first grandson in Albany, GA. A copy is in the airtel mail. You I still use my T2000 with KADOS, two disk drives and RAMDISK.*



**Sender: Bob\_Sawyer-CEXCOM@jamaal.net.com**

I just read L1ST for January. There is for me to be a Q1 Show USA sponsored by NBSQUUD on May 3, 1997 at Bedford, PA. It must be near Washington DC as Dulles Airport is the one to fly into.

Frank Davis will be there. Contact Bill O'Leary boole@times-sensar.com and Ed Knapley-aka@times-sensar.com for details.

It would be a good idea to get this news into the next QJA/ would it not or would it be too late? It says Tim Swenson's email address is swenson@jamaal.net with a@aol - is that true or is there a new address since he is out of the military? When you get the L1ST you will be able to pick up more email addresses for the L1ST group. Seems like we have been out of touch for a while, is it well with you and her?

There has been a lot here that you are thankful you are there and not here. We will have no January meeting because of busyness and cold weather. —GATOR—

**Tim Swenson E-mail address was in the last QJA/ swenson@jamaal.net.com**

**Your E-mail Address has changed, apparently you didn't move my E-mail**

**To: 303-877-1445@compuserve.com**

**Subject: Di-Ron Infants News**

**X-Mailer: Di-Ron news, Inc**

**X-User: Di-Ron Email**

### **Email Address Change**

Please immediately change the di-ron@di-ron.co.uk

Email address to support@di-ron.demon.co.uk

This change is due to continuous handling problems with the di-ron.co.uk Email address handling.

**Robin Barker Di-Ron**

**Dear Alad,**

Even though the Toronto Times-Sensar Di-Ron Club that forms a couple of years ago, there were eight or so members who did not wish to lose friendships that had developed over the years, and who, as a consequence, continue to meet once a month, at my home. Our discussions encompass the whole computing field, not simply the Sensar product. Most of us have PCs, but also have a Sensar/Times of one sort or another.

Anyways, what I really wish to do is compliment you and Don Lambert, and all others who continue to put much effort into the Sensar scene, for the benefit of us all.

Sincerely, and Best Wishes for the future

**George Chambers**

**Scarborough, Ont**

**Canada**

*Thank you George, it is comforting to know that all is not lost. And best wishes for the group.*

**Alad,**

Here talking with you tonight. Please email me in T2000.

I have stated going thru the earlier issues of UPDATES as you suggested hoping to find a solution to my printer/2000 problem.

With the ALICED-CP-48 I acquired recently from RMCI, my 2-pin printer Star NC1080 works fine, but when I try to use my new Epson 8360 24-pin printer, I get gibberish. Rod was not able to help.

## **Can you help?**

Thanks for your patient listening.

Sincerely,

**Earl L. Kleigats**

**2015 E. Duke Dr**

**Tempe, AZ 85283-2413**

**602 836-4308**

## **Welcome to our Community**

The article I had as model is in the October '99 UPDATES, page 44, by the late Larry Conwell, "24-pin Bit Image Graphics".

This is not exactly what you are after, sorry to say, but some member must have had the same problem. Anyone please?

# QL Show

Thanks for helping spread the word. Although this is basically a QL event, anyone at *release* and *Frank Data* will be there offering a wide range of similar products - Bill

Here are the initial details for the '97 North American QL Show in Bedford, PA. Although Bedford is on an interstate exit this is basically in the country. There is no public transportation but the restaurant is within walking distance of the motel. Date of the Show : Saturday May 3, 1997

## Location of the Show

Carriage House Restaurant

Exit 11 off the I-70 & I-76 Interstate  
Bedford, Pennsylvania USA

Phone : (814) 623-1174

Time of the show : 9 AM - 4 PM

Bedford is half way between Harrisburg and Pittsburgh on Interstate I-70 & I-76

## Format of the show

The show will include talks and demonstrations by well known QL personalities and sales by a number of vendors. The show will take place in the main dining room of the restaurant and lunch is included in admission to the show. After the show a banquet will be held at the same restaurant at 6 PM Saturday evening. All the newest QL hardware and software will be there to see and purchase

## Admission Fees

\$12 per person if you notify Bill Cable in advance \$15 per person at the door

This includes admission to the show and LUNCH and general refreshments throughout the day

## Recommended Motel

Super 8 Motel

Business Rd 220 N

Bedford, PA 15522

Phone : (814) 623-5860

FAX : (814) 623-5880

Also at Exit 11 of the I-70 & I-76 Interstate at Bedford

## Rates

Double occupancy with one double bed \$40/91 Double occupancy with 2 separate beds \$44 72

When you make your reservation mention Bill Cable and the QL show to get the special rate. The rate is per day. There are 57 units, Exercise equipment, HBO, Free local calls, waterbeds, children under 12 free.

## Recommended Airports

Dulles International Airport

Washington, DC This is about 2 1/2 hours by car from Bedford

Pittsburgh Airport

About 2 hours by car to Bedford

Harrisburg Airport

About 2 hours by car to Bedford

A more detailed agenda will be released on February 10th. There will be a dinner gathering 6 PM Friday night also at the Carriage House Restaurant. Those flying in to airports and needing rides to the show please contact Bill Cable and every attempt will be made to connect you with a local QL person going to the show who can meet you and give you a ride. Likewise, QL people driving to the show who would like to give a ride to a QL enthusiast from far away please contact Bill Cable.

This is the 5th annual North American QL show. It is being sponsored by NESQLUG (The New England Sinclair Users Group) and all details are being handled by :

Bill Cable

NESQLUG Director

RR3 Box 92

Cortish, NH 03745 USA

Phone : (603) 675-2218

E-mail : bcable@attion.com





# IRA Pay-Out from THE RAMTOP by John Schoenfeld

IRA's (Individual Retirement Accounts) are good for those who can afford them. At present you can put up to \$20,000 a year into such an account, and receive your taxable income by the amount of your deposit. You can not withdraw any money until the year in which you become 59½ without suffering a penalty. Many banks have displayed ads telling how much you will have at retirement age, assuming a given rate of interest. Banks offer various options for the systematic rate of withdrawal of funds, but no such information has been advertised.

The program provides for a uniform rate of withdrawal. You must state the beginning amount (how much you have accumulated), the assumed rate of interest (a guess on anyone's part), and the number of years of pay-out (must be equal or less than your life expectancy at retirement).

The process is called *annuities*. The amount of annual pay-out is first estimated by the variable "a" and then the process is repeated until the balance is 0 after the last pay-out is within one dollar of zero.

The first display shows the amount left after the last pay-out, alongside the annual payment. The second display shows the balance of funds for each year once the pay-out amount has been established.

```
10 REM "IRA"
15 REM - by Max Schoenfeld
20 INPUT "How much money to start? $"
  "a
30 INPUT "Expected interest rate? %"
40 INPUT "How many years to pay out?"
  "rd
50 GOTO 30: PRINT "This table shows
how much money remains in the account
after "&d;" years, with the amount of
annual withdrawal."
100 PRINT
110 LET a=a/100
120 DIM a(d+1)
125 FOR n=0 TO d+1
130 LET a(n)=a
140 LET a(n)=(a-(n-1)*a-1)/(d+1)-a
150 NEXT n
160 PRINT a(d+1): TAB 120:
200 LET a=0: GOTO 110/100
```

```
210 IF a(d+1)<=1 AND a(d+1)>=-1 THEN
GO TO 300
215 GO TO 100
220 PRINT "Balance by year, after
paying out "&a-(a(d+1))/100"&" each
year"
225 FOR n=0 TO d+1
230 PRINT (a-n): TAB 100: (x)
235 NEXT n
240 PRINT "Total pay-out is $
"&d*(a-(a(d+1))/100)&"
```

Below is an example of how the program works. Start with \$20,000 in the account. Assume an interest rate of 8%. Plan for a 25-year pay-out.

This table shows how much money remains in the account after 25 years, along with the amount of annual withdrawal.

1000.2143	2000
-248.1888	2042.3084
16.175667	2026.2705
-6.087128	2037.1943
0.7298333	2037.0282
Balance by year after paying out \$800.000 each year	
1	19982.972
2	19699.981
3	18861.232
4	18030.782
5	17438.13
6	16793.932
7	16000.481
8	15051.493
9	14042.505
10	13068.963
11	12725.452
12	11786.46
13	10885.949
14	9817.3863
15	8423.7599
16	6747.8428
17	5080.1987
18	3633.1863
19	1868.813
20	0.7298333

Total pay-out is \$ 40740.365

## The LarkEn Disk System by Gil Parrish

 It is an inherent problem with any user support group that a newbie does not receive the full benefit of prior activity. Obviously, a user who first shows up in April does not get to see the hardware/software demonstration given in March. And because the prior activities are therefore "old hat" to the people who did participate in them, old subjects may never be raised again.

 I was reminded of this recently when I set out to get disk drives for my 286. I've never had anything except tape drives, so I've paid only the barest attention to disk drive-related matters. But when I picked up an unnamed LarkEn Disk Interface kit from a T.O. salesman who never got around to trying it, I suddenly got VERY interested in the subject of the LarkEn, only to discover that a basic discussion of what the system is, how you connect it up,

and what it does, seemed to be missing from prior issues of the newsletter—no doubt “old hat” to most. What’s a newbie to do? So, for the benefit of future newbies, this article is a “beginner’s-eye review” of Larry Kenney’s LaKer Disk Interface system, with particular emphasis on set-up.

**Q** My first reaction on receiving the kit was—this is *stiff*! While some LaKer systems may come with disk drives added by the prior owner, the kit as I simply has two stainless-steel boards, a silver-plated manual and a disk. Nothing else. The manual mentions almost casually that you also need a disk drive, power supply for the drive and a cable to connect everything up, but does not go into any detail on how this is done. Is connection really so easy, or is the manual deficient on that point?

**A** It turns out to be just about that easy. External disk drive units, having their own power supplies in the case, are available in the used market for a variety of early computers. Some of these drives (e.g., Commodore and Atari) are “intelligent” peripherals and would not be a good choice for a LaKer system because they have been heavily modified for their particular use. But others, like those made for the Tandy/Radio Shack Color Computer (“CoCo”), are fairly generic disk drives that require a separate disk controller—which the LaKer provides. If you find an external unit housing a drive that meets your needs, you can use it as-is without getting into issues of power cabling and drive configuration at all.

**Q** However, if you need or want to replace the floppy drive that comes in an external case, that drive is not difficult. You have a wide choice of replacement drives available to you, since the LaKer will work not only with standard 5-1/4" DDSD drives with 40 tracks per side (which probably has the greatest compatibility with other LaKer users) but also with older 5-1/4" floppy mechanisms like 35-track per side drives, 80-track per side “quad-density” drives, and single-sided instead of double-sided drives, as well as 5-1/2" drives. Luckily, most drives have standard power connectors and cable interfaces so an old drive can be taken out of an external case and an appropriate one configured and installed fairly easily with the same wiring. “Power splitters” are available from sources like Radio Shack if your external case has one full-height drive and you wish to replace it with two half-height drives (which typically use less power each). Power connectors are also available if you want to go to a 3-1/2" drive as a space saver for 5-1/4". If you encounter an external drive case to suit your needs, another possible power source is a computer power supply (inside or outside) removed from a junked PC or similar. Such unit likely has the disk drive power cables already in place and set to go. But of course, in that event, you’ll have to enter up with a separate box to house the floppy drives.


**Q** Configuring a drive involves setting the drive to the number to which you wish it to respond. The LaKer refers to the drive’s ID controls as “0” for the first one, “1” for the second, and so forth, and most floppy drives use

the same designations (although you may run into some that use letters like “A” and “B”). Typically, there are two rows of pins somewhere on the drive mount board with designations like “DS0” for drive 0 and “DS1” for drive 1, next to different pairs of pins. Look for a small slide-on connector tying a pair of pins together, and place that connector on the pair of pins next to the appropriate drive number. On slider drives, you may find instead a configuration sheet, which will require you to cut the connectors you do not need (e.g., for drive 0, cut the ones labeled 1, 1, & 2), or alternately, to reconnect up (with solder or wire) a previously-cut connection you do want. These slider drives may also require a terminating resistor on the last (highest-numbered) drive, such resistor normally looks somewhat like a regular IC chip with 14 or 16 pins and has the resistor value written on it. So, if you take a pair of slider drives out of another unit for this purpose, the one with the resistor will need to be the last drive, or the resistor will need to be paid out and relocated to the drive you want to be last.

**Q** The required interface cable, typically a ribbon cable with 34-pin Shugart-compatible female edge-card connectors on both ends, were common a few years ago and should not be hard to find. For instance, the CoCo cable, which is a flat cable without the “IBM Twist” on the middle 4 segments of the wire twisted 180 degrees from how they would normally stack, will work. I did not test an “IBM Twist” cable.

**Q** In my situation, I removed a full-height 35-track drive from a CoCo external drive unit, and replaced it with two half-height 5-1/4" DDSD 40-track models, utilizing a power splitter. I picked up these drives for about \$5 apiece in a used software/hardware store, sometimes while angled PC-type computers can be found at the \$15-\$20 range and stripped of drives and any other appropriate parts. The new drives didn’t exactly fit the case like a hand in a glove (screw holes in wrong position and such), but they did go in, could be locked in place with a little slotted tape, and functioned fine.

**Q** As stated, two separate boards are needed by the LaKer system. One slides into the expansion port connector in the back of the 2688, that one, which has a pass-through interface for other peripherals and a 34-pin Shugart-compatible card edge, is the second disk interface to which your disk cable attaches. The other board goes into the 2688 cartridge port on top, that is the brains for the system, and avoids you having to load the operating system every time you turn on the computer. Command-ware, the LKDCS operating system makes your life a bit more complicated because, when you wish to access the cartridge drives, you are required to give a RAMD 128, 180 command (for a PRINT 84 command, if you have previously given a RAMD 128, 108 OPEN 84, 61 command) preceding any disk instruction (e.g., RAMD 128, 108 LOAD “FILE.M”). Driving such long commands can get old, but the right software can alleviate this (see LogCall below).

 With LKEDOS alone, the system can LOAD, SAVE, rename files, erase files, give you a disk CATALOGue, send the catalog to printer, and perform other useful tasks. Additional common disk-handling functions are done by separate programs. These extra utilities are what set us on the Laiken System Disk, and include such things as formatting, copying whole disks if you have two drives, copying files from one drive to another, and copying files from one disk to another on a single drive (through "disk swapping"), which gets old fast since each program on the disk requires at least one and sometimes more than one swap from source disk to destination disk and back again! These programs pretty well complete the list of basic disk handling functions, though different and additional utilities are available in TRIMU's Laiken Library if you want them.

 But, as the old manual buttons used to advise, "You say that's not enough? You say you want more?" Well, the Laiken diskette gives us additional features not strictly necessary to its basic mission. For instance, the system has built-in printer drivers that allow the Laiken to work with the AIRCO, TASHMAN and A&I parallel printer interfaces without loading extra code. It does NOT have built-in code to work with the Byte-Bank parallel printer, and therein hangs a tale. I have (you guessed it) a Byte-Bank parallel interface. The Laiken instructions state that you can load a separate parallel driver, tell the system where you placed it (with the appropriate POKE), and the system can use it. The outtridge even has some free RAM where you can stash the code and not use up any regular memory. Perhaps for some printer drivers this would be more than enough, but for reasons beyond what "read the manual" would solve, I am unable to successfully load and access the Byte-Bank printer driver. I assumed there were lots of folks out there with Laiken/Byte-Bank systems who could advise me, but the Laiken experts I consulted had never run across this problem. I even dropped a note to David Letts, who is like Byte-Bank himself and a very helpful person, but have not received a reply. If anyone KNOWS the solution (not "work-around XXXXX" to work"), I'd still be interested. But as the instruction, the Laiken works well enough with my 2048 to print out disk catalogs and do other similar light-duty tasks.

 The Laiken system supports the replacement of the 2048 ROM with a Spectrum ROM for running Spectrum software, or (with some minor hardware tacking) playing a Spectrum ROM on the interface in addition to the existing 2048 ROM (said here, Bob Swagat can supply you with the needed socket and ROM for \$13, see his final offer elsewhere in this newsletter). The system has a Kompton-style joystick interface, for use on those 160k or (usually) Spectrum programs requiring Kompton *joysticks*. Perhaps most importantly, the interface has a "snapshot" feature that allows you to throw a program in memory and save the image to disk. The primary use for this is moving to disk all those old cassette-based games that survive.

 I stated above that giving these long disk

commands preceded by RAND 100 or PRINT #4 was got old after a while. I also found the manual was a bit cheap. Enter TRIMU's very own Bob Swagat, who both wrote his own Laiken auxiliary operating system called LogiCal, and rewrote the Laiken manual (which is bundled with LogiCal) to be clearer and more professional-looking. LogiCal, up to version 4.4 now, is a commercial program available for \$13 from RAM or TWD Computing (see the ads elsewhere in this issue). A full review of LogiCal is beyond the scope of this article, a review of LogiCal 3.03.1 by Alisdair Roberts appeared in the Spring '84 issue of *20k's QLow Alive!*, and Bob Swagat himself wrote a piece on LogiCal for the Fall 1986 issue. But suffice it to say here that it makes your life easier. You can arrange to unload LogiCal by holding the ENTER button when you turn on the unit. (Actually, this unload capability is built into LKEDOS and is not unique to LogiCal, but LogiCal makes the best use of it.) LogiCal first presents you with a disk menu, you can move to get a menu from another drive with a single keystroke. The system allows you to load the programs you want by typing in the name or scanning down to it, and you can perform many disk functions (like formatting, getting a disk CATALOGue, or erasing) right from the menu with a couple of keystrokes. The software makes calls to certain utilities particularly easy, and even integrates a number of application programs (like Turboed Two and Ya-M4) into the LogiCal system so that you may return to the LogiCal menu after editing such programs without resetting the computer. About indicated in the article that using LogiCal was like upgrading from a pre-viCal to an interface with overlays, and the analogy is useful. Perhaps more precisely, it feels like upgrading from a disk system which is a functional but somewhat awkward add-on to a computer not really designed for disk usage, to a system in which the drives are integrated so well that they appear to have been part of the system from the start. I would definitely recommend the LogiCal software.

 Incidentally, LogiCal provides a clue about how to set up your 160k system to achieve maximum test readability: it automatically changes the video display to light letters on a dark background, the opposite of normal. As you likely know from experience, a light screen tends to be swayed with what Fred Marchant's "The Times Reader 2048 Beginner/Intermediate Guide" refers to as the "overdrive", being "wiggly lines that provide the picture and are particularly noticeable as boundaries between colors." TVs show a lot of overdrive, and monitors aren't much better. Worse, color displays of my kind—this is monochrome—can also show color bleeding and other color side effects that hurt test clarity. My suggestion is to follow LogiCal's lead as far as it will go by finding a monitor that is monochrome composite (sometimes called "black and white" although usually green or amber or black). These things are practically being given away (\$3-\$10) when you can find them at garage sales and similar locales. My going light text on dark (which can be done with the appropriate FAPER, DKE and BORDER commands if you do not have LogiCal), and by naming

down the brightness on the monitor until the background is completely black, you can get sharp, readable text with an absolute minimum of overexposure and no color bleeding. You will especially appreciate this if/when you go into Display Mode 3 (64 columns text) to use ThreadView or other text applications. I would recommend in particular one of the old Zenith Data Systems monitors, which have a "64-80" switch on back. The "80" setting gives you a normal picture, while the "64" setting widens the aspect ratio of the picture, making those tall & thin 64 column characters fill out a bit more for better viewing. This is a FAR better situation when viewing than having to squint to tell a "c" from a "u" while debugging and color bleeding can read

across your screen.



Several other types of disk interfaces are available for TFS systems. In the same Spring '94 issue mentioned above is information from The John Oliver Company (see all elsewhere in this issue) as to "why the Oliver disk 17 with JLD Soft is the best available for your TS-3060" ATRIO, Ramon, and Joliva (TOS) are other choices you may run into in the used market. Not having any of these others, I cannot offer a comparison. But I can state that the LurKen (particularly mixed with LogCaly) offers a number of convenient features and works quite reliably. It would not be a bad choice for any TOS owner.

## QHJ Announces New Freeware

QHJ Freeware has just received the following new QJ programs. As with all QHJ Freeware files, these can be yours by just sending data and return postage to the address below.

From **Jonathan Hudson**:

QYer (80b, 1 Jan 97)

PE Editor that has two eyes that follow mouse cursor

SpEdit (80b, 4 Jan 97)

Tools to convert .com and .pic to GIF, TIFF, or PBM

MIME Tools (400b, 1 Jan 97)

Tools to handle MIME files (Binary E-Mail files) Motusnet,

media, spiritual, minicomputers, etc

Overseight 2.6.2 release 3 (34 Dec 96)

Program to save and print Postscript files (3.kib)

(300b, 680b, 680b)

QYM (80b) (140b, 25 Dec 96)

Quotemaster virus mail. Supports QFAX 2.0-Classic 2 mode

QFAX 2.00 (5 Oct 96)

Series and Docs (220b)

Support Files (240b)

Postscript Manuals (370b)

HTML manuals (80b)

PS-Printer Bug Fix (80b, 6 Nov 96)

Fixed Things Utilities (80b, 26 Oct 96)

From **Jerome Grimsbert**:

Chorus e Chorus program for the Postscript Environment  
chcscs.c (140b)

From **Phil Berman** (62 released 6 Jan 97)

Plus 1.14 Latest Plus 80b Program

Polo 1.16 Polo compiler and associated tools

QWK 1.16 QWK Office reader

QoP 1.16 QoP to Plus conversion routines

From **Arnd Borretzen**:

Norbus: Backup program

Doctor: File/Hard editor

From **Dave Walker**:

OS/2 Compiler Binary Update (80b, 17 Nov 96)

OS/2 Compiler Source (80b, 16 Dec 96)

OS/2 Compiler Docs (35b, 10 Dec 96)

(All of the above require OS/2 4.11a)

QWASS Assembler 3.22 Binary (80b, 20 Nov 96)

QWASS Assembler 3.22 Binary + Source (210b, 20 Nov 96)

OS/2 LIRC 4.120 (70b, 8 Dec 96)

PFU Support for QDOS 1.13 binaries (80b, 1 Jan 96)

QJ: Profiles (80b) (Author: Francois Lemaire)

Tells you where C program spends most of its time if there is any other software that you have heard about, that is not on the list or my main list, please let me know and I'll look into getting it. All of these files have been downloaded from various web pages. My thanks for those that did this, since it makes getting the software so much easier and faster.

### QHJ FREWARE

GO TIMOTHY SWENSON

38725 LEXINGTON ST 230

FREMONT CA 94538

(510) 790-7004

<http://www.geocities.com/SiliconValley/Fremont5825>

### Introducing Aurora QL Graphics card

The Aurora is a replacement QL motherboard and a graphics card, all in one product. It is intended to be used in boxed QL's with PC power supplies, but can also (with some work) be mounted into a standard QL casing (this involves soldering, though, and should be undertaken only by people who know what they are doing!).

The Aurora replaces the need to pull out the 5002 ULA and any kind of IFC (and/or keyboard extension) from their existing QL cages and plug those chips into the Aurora. We can also supply Aurora with 8002 and/or IFC of your choice for an additional price.

### Features

Can use old QL and VGA, SVGA, or midrange analog/digital monitors, displaying various maximum resolutions (depending on the monitor). Output levels can be set using jumpers on the board to accommodate monochrome, TTL RGB, analogue RGB or TTL-level analogue RGB (Macintosh CUB) monitors. Depending on the monitor type various connector adapters may be needed - the board is delivered with a VGA 15-pin mini-D connector adapter (to used with VGA/SVGA, and most midrange monitors).

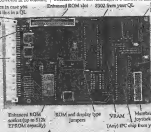
Maximum resolution at 1024x768 in 4 colours (MODE 4), 512x384 in 8 colours (MODE 3), 1024x480 in 16 colours.

Mounting holes in case you need to mount this in a QJ. Only slots for the boards.

External power connector

Standard QJ style expansion connector

Enhanced ROM slot - 256K from your QJ



Monitor connector  
Reset, on, speaker, power and on LEDs  
QJ compatible video port  
Ser 2  
Ser 1

# Aurora

The QJ Graphics Card

depending on both monitor and Aurora's built-in interface enabling a left to the user (the one-sided resolution displayed) - standard displays will not be of high quality on QJ monitors, that being the fault of the monitor itself.

Resolution is selected on the basis of 4 horizontal resolutions: 320, 640, 768 and 1024 pixels. In addition, for any of the 4, one of two aspect ratios can be selected - 2:1, common to QJ displays, where the number of pixels in the vertical direction is half of that in the horizontal (320x240, 640x480, 768x576, 1024x1152), and 4:3, common to QJL, QJC and QJMC users (320x384, 640x480, 768x576, 1024x768).

Modes are selected separately of resolution. Mode 4, and the new modes with 16 and 256 colours are provided. Mode 3 is also provided for compatibility, and will display half the pixels in the horizontal direction, with aspect to mode 4, just as a QJL would. As on the QJL, flashing in mode 3 is ignored, but the data for it is retained for compatibility reasons.

Programs accessing the original screen area will display a picture in the top left-hand corner, regardless of resolution selected, as long as the screen is in mode 4 or 3.

Please note that in order to use the higher resolutions and more colours, a Super Gold Card is required. The card can be used with a Gold Card as well. The ability to use VGA/SVGA or multiport monitors is NOT affected by the use of SGC or GC - this will work with both -/to-

Will accept any IFC on the market (superformance is highly recommended, there is a special superformance jumper which allows you to use the superformance flying lead) and any PC keyboard interface - with some

minor sockets (available on request) over the following interface with mode (although it's almost as late as Aurora).

Enhanced ROM slot - 256K from your QJ

Monitor output level jumpers

Monitor connector  
Reset, on, speaker, power and on LEDs  
QJ compatible video port  
Ser 2  
Ser 1

Serial port connection provided can be used with PC-style connectors (as used in PC IO cards), using simple flat cable with pin-to-pin connector adapters (DIN 19 to D9). Ports use the standard PC wiring as you can use standard PC cables you can cheaply buy in computer shops.

On-board QJMC compatible mouse interface is provided for QJMC users, so the original QJMC monitor cannot fit onto the board because of the size.

Enhanced ROM slot can accept QJ ROMs (both stored one each other, piggyback), Minerva (any version) or an EPROM (including the Minerva EPROM without the Minerva PCB). 64, 128, 256 and 512K sizes are supported, with the OS automatically recognising in the first 4K. We are currently working on extensions which will enable loading of programs from the EPROM if a larger size EPROM is used. Type of chip used in the ROM socket is selected by jumpers.

Enhanced ROM slot can be used with existing ROMs slot peripherals (by use of a small adapter cable). For unknown, additional lines are supplied - R/W, RESET, EXTINT and a special select line which decodes the unused part of the QJL IO area (15 32 total space).

Minerva keyboard and mouse connection have been replaced by a 20-pin header. This can be used for applications which need only a few bytes, or with an adapter (1) decoder and mouse cable - total cost about 5 Pounds) for the QJ minerva keyboard can be connected.

The board is powered from 5V power, we support using a QJPower for this (as may, no-solder solution). In case of fitting into a QJL case, a separate connector is used to connect a +5, +12 and -12 (and optional +5V) power supply, which the user has to provide.

PC case compatible header is provided for a rear switch, power LED, speaker, and network LED (we use the PC case Turbo led for that). A simple cable adapter will connect standard QL net ports to the header as well.

There are NO modems/drivers and NO TV modulation!

### DRIVERS

Immediate high resolution support is available for SMDQ/E cards, in modes 4 and 8, by applying a patch to SMDQ/E 16 and 32k colour drivers will be available in the future (see below).

### LAST MINUTE NEWS

Tony Tabby is currently working on extended screen drivers which will allow more colours to be used on QCLs and QPCs, and possibly other SMDQ/E systems. We are taking steps to ensure that they will work on the Aurora tool.

The card will be available in 4 to 5 weeks from QuMaverick PC, for 126 UK Pounds, plus postage and packing, new manual, SMDQ/E patch software and utilities, and VGA lead included.

### FUTURE PRODUCTS

We intend on producing a successor to the Super Gold Card, again we haven't thought of a name for it yet but it might be called "The Gold Bar". The project name we have

given it is "The Super Duper Gold Card", this doesn't mean it is going to be called this when we release it for resale. Early specifications are as follows:-

Up to 64MB of RAM using a 72 pin SIMM, options being 1,2,4,8,16,32 or 64MB. A bi-directional Parallel port enabling connection of back-up devices etc. An EIC port similar to the one on Minerva.

Other items that we are looking into producing are an ETHERNET Card for the QL, which will speed up the QL > QL Network. A FLASH EPROM card that can be programmed and re-programmed from software.

If there is anything that you feel the QL is lacking, hardware was that is, please let us know and we will try our best to look into it and use it if it's possible. For further information on any of the products we carry for the Super QL, please contact us at the address below:-

QUICKSOFT LTD  
35, BRUNNIN ROAD  
RAYNE, GRANTRICE  
ESSEX, CM7 5BL  
UK  
TEL: +44 (0)1376 347652  
FAX: +44 (0)1376 351267

# QL Hacker's Journal

#26 December 1996

Supporting All QL Programmers

by Tim Swanson

The QL Hacker's Journal (QHJ) is published by Tim Swanson as a service to the QL Community. The QHJ is freely distributable. Past issues are available on disk, via e-mail, or via the Aurora FTP server, please mention it. The QHJ is always on the look out for article submissions.

QL Hacker's Journal

c/o Tim Swanson

30725 Lexington St. #230

Folsom, CA 95758

swanson@prodcom.com

<http://www.prodcom.com/SiliconValley/Folsom/5845/lexden.htm>

## Editor's forum

It's hard to believe that the last QHJ came out last May. What have I been doing? Well, let me tell you. Since May I have had a number of life changes that have kept me busy.

The first is a change in jobs. I decided to leave the Air Force and seek employment elsewhere. I spend a number of months looking through technical career magazines and various technical job related web pages, looking for job openings. I found the San Jose Mercury News Talent Center to be about the best place to look, esp. for the SF Bay Area.

Related to the first change, was leaving my job. I had to finish a few tests and then document my job so I could pass it along to someone else. Documenting what you know is not as easy as it sounds. I also had to spend some time on processing files from the service. It takes paperwork to

get in the service, and it takes even more to get out.

The final and biggest change was moving from Dayton, OH, back to the SF Bay Area. Getting the house ready for moving and getting it ready to sell took a while. I had to do some painting, replace a few doors (one cracked and one warped), patch some mortar on the back outside of the house, and a few other household chores.

That all left very little time for hobbies. Almost the only time I used the QL was writing cover letters and printing Resumes. And when the move my access to the Net, esp. USENET has been limited.

I am waiting for my house to sell in Ohio, so I moved into an apartment. This meant that I had to get a number of household goods in storage. The movers did not do a good job of putting the right stuff in the right boxes so I could get what I needed off the moving van and put the stuff I did not need in storage. The result that my QL is with me, but the disk drives, power supply, mouse, and modem cable are in storage. I've had to borrow disk drives, a PC power supply, and a QL power supply to get the QL up and running. I still have to make a modem cable. I'm using my Z88 for my telecomms needs, and it's tough living on Internet Service Provider that supports 8 lines of display (not much). Once I get a modem cable built I should be able to read some eye mail.

Speaking of the Z88, most of this note has been written on the Z88 while riding BART (the local commuter rail system) to work. I have about a 30 minute BART ride, so I have lots of time to put to good use.

And also speaking of work, I am now working for a

company is Berkeley called Pragmat Technology. They were founded by Sally Scholer and Steve Meier, creators of the SM Object Oriented Analysis Method. My job is to maintain the Sun UNIX boxes and the PC's.

While I've been busy doing non-Q&U things, I noticed that no one sent me e-mail asking where the next Q&U issue was. I'm not too sure if this is a good sign or not. Granted it was nice not to be bugged, but then I have to wonder if the Q&U was missed.

One thing you will notice with this issue is the number of articles with no code. I have not had the time to sit and write all the QL, so I've written some articles and covered what code was necessary with pseudo-code.

Well, that's about enough for me. Oh, since I have just moved, please note the new mail mail address, but don't write it down in ink. I hope to buy a house sometime around the March or April '97 time frame. Here are the specifics.

## Exclusive OR Encryption

I've always been interested in encryption. Keeping my files safe from prying eyes has been more of a want than a need. Plus encryption is a neat programming problem to solve. Many years ago I wrote a program called QL Crypt that was my first look at encryption. In Q&U XXX there was Complex ASCII Rotation (CAR) that was aimed at encrypting mail messages just enough to make them secure from casual observers. There are many other ways to encrypt files, each with it's own level of safety.

Encryption is based on two parts, the Method and the Key. The Method is what various computations are performed to get from the clear text to the encrypted text. This is equivalent to a lock. The Key is the chunk of data used to make one encryption different than another, since the encryption Method does not change, it is the Key that makes your text encrypted different from somebody else's. This is the equivalent to, well, a key. A specific model of lock is manufactured into a thousands of individual locks. These locks all lock and work the same. It is the key that makes each one secure and different from the others.

There are many methods used in encryption, from the very easy to break, to the damn near impossible. The harder to break, the more computation necessary to encrypt. If you are worried about making computational cycles, then you need only implement the Method that secures the information to the level you need it. Securing a Christmas gift list is different than securing company trade secrets.

QL Crypt and CAR both used a character rotation Method for encryption.

As each character was read in, a value of 1-4 would be added to their character value (CHAR), based on the Key, and then output to the resultant file. QL Crypt allowed the encryption of binary files, CAR stayed with pure ASCII text so that it could be sent a.e.m.

Each one of these Methods, and every more, requires the use of two functions that are the opposite of each other. In character rotation, a value would be added to encrypt, and subtracted to decrypt. What ever operation you go

through to encrypt you must reverse to decrypt. Exclusive OR encryption does not have two opposite functions because Exclusive OR is the opposite of itself.

Exclusive OR (XOR)

Bit 1	Bit 2	XOR
0	0	0
1	0	1
0	1	1
1	1	0

When using Exclusive OR with a bit pattern, what you XOR it with is typically called the Mask. To show you how XOR is the opposite of itself let take a look at the binary pattern 000110 XORed with the mask 111111

Bit	Mask	XOR	Bit	Mask	XOR
0	1	1	1	1	0
1	1	0	0	1	1
0	1	1	1	1	0
1	1	0	0	1	1
1	1	0	0	1	1
0	1	1	1	1	0

Notice that after XORing the bit pattern with the mask and then XORing the resultant bit pattern with the mask the original bit pattern returns. This means that writing the program to implement XOR encryption does not require the writing of an encryption routine and a decryption routine, only one is XOR routine is needed.

The Mask that is used in the XOR routine is derived from the Key. How secure your data is, is dependent on the Key and its length. If you use a Key of length one (1 byte) then it would take only 256 tries to break the encryption. The longer the Key, the more time necessary to break the encryption.

QL Crypt used the random number table in the QL as the key. A password was ENTERED from the user, which then was used as the seed value for the random number table. This makes for very strong encryption (so the random number table is fairly large and makes a long Key), but it made it impossible to port to other platforms. Even differences in QL ROMs could cause the program to fail.

CAR used a ASCII password ENTERED by the user. This makes the program very portable, but also makes it a weaker form of encryption. If the user typed in a fairly long password, then the level of security would go up.

## Constructing a Spell Checker

A spell checker is usually composed of two parts:

1) word lookup (to see if a word is spelled correctly)

2) word suggestion (to suggest the correct spelling of the word). Most users of the Q&U have looked at different algorithms to tell how close two words are, a key part of word suggestion. This article will focus on word lookup.

The key thing to decide on creating the word lookup algorithm is the data structure for storing the words and quickly looking them up. If the word list was fairly short, a brute force method would work. Since most spell checkers will need a word list in the tens of thousands, the lookup algorithm will need to be smarter. We also need to keep in mind that the words will be of many different lengths.

At first the many developers data structure would be a tree structure. A word would walk down the tree structure



letter by letter. When it reached the end of its length it would check the current tree node to see if it is a valid word. Let's take a look at three words, bat, bar, and bar, and the following tree structure:



With the word BAR, the B is valid, which leads to an A, which is valid and it leads to an R, which is valid. The R node will have a value of 1 to signify that it is the end of a valid word. This way the structure can parse both BAR and BARB and distinguish between the two. When parsing BARB, the B is true, which leads to A, which leads to R, but now there is no R path in the tree and the word is determined to be invalid.

The problem with this data structure is two fold, one, you need to construct it out of the dictionary file at run time, which can take some time, or you need to find a way to store it as it can be read in easily. The second problem is that the language we are going to construct the spell checker is a SuperBASIC, which does not easily support making tree structures. They are easily created with C structures or Pascal records.

We could use a hashing algorithm since it is designed for very quick look up, but with a very small list of words, our hashing algorithm may require more data space than we really need.

We need to come up with some data structure that is tailored to our needs. One that will provide a fairly quick

look up and minimize on the data space needed to store the word list.

Here is a suggestion. Store the words in a flat array. The words will be pre-sorted on disk, first by the length of the word and then alphabetically. This means that all of the two letter words will be grouped together and sorted alphabetically, then the three letter words, etc. Word length is one way to distinguish one word from another.

Create a two-dimensional array called `start_array(X,Y)`. The X value will be LENGTH and the Y value will be FIRST\_CHAR. As the words are read in, the array will be used to keep track of where the first 2 letter starts in the array, where the first three letter word starts, and so on. It will also keep track of where words start by the first letter. When you need to do a lookup of the word BAR, LENGTH is 3, FIRST\_CHAR is equal to B, so you would look up `start_array(3,'B')`. This will return where the first 3 letter word that starts with B is stored in the word array. From there the search can be a simple brute force search that compares all three letter B words to see if they match BAR.

To determine where the search should end, you will also need to know where the first three letter C word is at. This can also be looked up in the start array. Below is a little pseudo code showing how the words work.

```

start = start_array(3,'B')
stop = start_array(3,'C')
FOR x = start TO stop
  IF word_array(x) = BAR THEN EXIT success
NEXT x
EXIT fail
  
```

## Surfing The Net With The 2068

On Addressing The Internet, Using The Times-Sinclair Model 2068 by David Lancia

In this article, we discuss several services, provided to us in subscription form, by a computer, that speaks UNIX.

We have something to say about telnet, email, making lists, the web, news, apples, and ftp.

After being tired to establish computer contact, the rest of these programs communicate off-line. OFF-LINE communications (in real time) are talk, nc, or mda.

First, we use the telephone, to CONNECT with our Internet provider, in order to show the UNIX prompt, "B", on the screen.

### TELNET

Telnet is a facility, as far as we know, so old in the history of connecting computers, as to answer the phone whenever we make our external call to the Internet service. Then, of course, Telnet server to CONNECT us to whatever other computer on the Internet, that we desire to talk to.

Boy, this must really kill the guys at the telephone company, as they try to get a piece of each cash school. Here is how it goes for me. I call 120-426-4760, which responds with "welcome" and a request for a user name.

After that, it asks for my password. Lastly, it asks for the computer I want to work on, since Arizona State has a lot of computers. After "connect" appears, the banner/news items is displayed.

Should I type "telnet user-name@computer-name", then a host prompt appears, based upon Internet traffic, followed by a response with site-name and a request for a user name. After that, it asks for my password. Lastly, as above. From the foregoing, you should see that using Telnet is like calling a BBS, e.g., BUL.BBS at 528 882 0088 with "user" as a user name and "user" as a password.

By a careful reading of the above, you should also see, that each TELNET site differs in log-on procedures, as much as it differs in general content. This includes the initial call to your Internet service!

Anyway, by going through the above steps, you have gained access to the Internet and/or sites to whatever other site on the Internet, you might have addressed.

### E-MAIL (Electronic Mail)

We use program MAIL, in order to SEND mail over the Internet, using the 2068 computer and a shell account,

in order to access the web. I don't know all the details, but MacDraw software does not seem to actually simulate the VT100 terminal, because we cannot go UP on the screen and, hence, we are limited to line editors.

Shell accounts usually use "EMACS" and "MC" to read mail but, alas, they use full-screen editors. But, they replaced "read", which has been left as a rather efficient line editor, and "read" sure does a good job!

Suppose we are looking at the UNIX prompt, "E", on the screen. Then, we type "read user-name@computer-name", in order to set up the computer, for sending the message which follows, to the user with the name "user-name" at the computer, bearing the name "computer-name".

Next, my editor jumps to the start of the next line, which is blank, or comes (as full-screen editors) I enter the message, but by line (full-screen editors only). I terminate the message, by typing only "-" on a line and pressing ENTER. The message can also be terminated, by typing "Q" or "q" on a blank line, where "Q" denotes first pressing the CONTROL key, (CAPS-SHIFT/OUT on the IBM with MacDraw). When the UNIX prompt E consequently appears, the message will have been SENT to the addressee, user-name@computer-name.

Now, in order to check for your own email, simply type "mail" and press ENTER. A response of NO MAIL means an empty mailbox. Otherwise, "FROM ..." will appear, followed by any first email message in your mailbox.

After having an email message to you, the UNIX prompt E will appear. This initiates a reply, should you type "r".

and press ENTER. This also deletes that particular letter from your mailbox. In order to delete the letter only (without a reply,) then simply type "d" after the UNIX prompt.

## MAILING LISTS

There are something we can join, in order to keep our electronic mailbox filled with interesting stuff!

For example, open your download buffer, in order to get an ASCII copy of the following season, where you got the UNIX prompt onto the screen, and then ENTER the line:

`http://www.usa.indiana.edu/relgsh/`

Don't forget to close the download buffer, when finished!

It contains information on how to join (or leave) mailing lists, each devoted to a specific special interest group.

Whenever a member submits email to the mailing list, then it is immediately sent to all other members of the group.

So, all you need to know is how to send and receive email. Also, the address of an interesting mailing list to talk with, would be helpful. -)

## FTP - File Transfer Protocol

"ftp" is the name of the UNIX program, for implementing FTP. First, get the UNIX prompt "E" on the screen, ENTER "ftp" alone, followed on the next line by

"open rtfm.mit.edu". This last will be in response to the ftp prompt, "ftp>". resulting from the initial entry of "ftp". Alternatively, we can connect to the remote host, "rtfm.mit.edu", by ENTERing the line

`ftp rtfm.mit.edu`

The ftp facility can be terminated, by typing "quit", in response to any ftp> prompt.

Use the "get" command, to download any file to your current directory.

Of course, you should already have set up a directory on the UNIX system, where you store your downloaded files. Do this, BEFORE you use ftp to access the remote directory. Furthermore, there are simple commands like "cd", to change to the desired remote directory.

Now, we can up- and down-LOAD all kinds of files, as the Internet machine with UNIX is a bit more sophisticated than our IBM system.

Just be aware, that downloads to our IBM system are limited to ASCII transfer.

## USENET (news groups)

The UNIX program for accessing USENET is called "tin". Now, if you just ENTER the name "tin" then would follow an endless sequence of questions, an antecedent to new news groups, each question demanding a YES or NO answer, followed by an identical question (!). So, here is what we do:

At the UNIX prompt, "E", ENTER "tin-q". This will bring up a menu of ALL news groups, which you have read. You can enter any news group on the list, by ENTERing its line number from the list, followed by another ENTER. We come back to the last menu, by ENTERing "q". We can keep ENTERing q's like that, till we reach the UNIX prompt.

At the UNIX prompt, we can also choose to read a specific news group, say "alt.10" on one-dimensional figures, by ENTERing the line "tin-q alt.10" and, yes, the space(s) following "tin" are critical!

The important thing is the ability to arrive at the UNIX prompt, "E", on the screen. While this is more complicated, than lifting a telephone receiver for the first time, this is still a simple task, costs about \$30 monthly, and requires the advice of your Internet service provider. So, when signing up for Internet access, be sure to keep track of the telephone number of the SYSOP (system administrator).

## GOPHER

Let's explore gopherquest! Sounds like the underworld, doesn't it? To do this, we call on a UNIX program, called "gopher".

While looking at the UNIX prompt, "E", we can type "gopher" and then press ENTER. This will access any local gopher site, as set up by the SYSOP. In order to access a specific gopher site, any wrapup-gopher.com, then enter the line

`gopher wrapup.gopher.com`

Up comes the MENU, most of whose items refer to other menus. So, choose an item, by ENTERing its line number, or by pressing the space key, at space bar, till the item is displayed at screen bottom. Then, enter the item,

by pressing ENTER.

After this, searching the Menu for your particularly interesting item, then, enter the item, by pressing ENTER. Next, program "popper" will load your topic and display the text on your screen, one page at a time.

So, you can spend all day (or night) exploring the underworld of gophermail, using only six basic commands: "h" (or "H") and "y" (or "Y") to move UP and DOWN within a menu, respectively, ENTER, and "u" to move from one menu to the next in previous, respectively, and SPACE (or ">" or "+") and "b" (or "<" or "-") to page forward and backward through long menus, respectively.

Should we get lost amongst all these menus of Menu, we can always type "m", to escape to the main menu!

At the UNIX prompt, "T", we can escape back to the Internet main menu, by typing "escp" or "D". We terminate the session, by escaping the Internet with "C" at the main MENU!

## THE NET

The net is man's latest attempt at a universal communication system.

After using the phone to connect to an Internet provider (like using TELNET), sending lists offered the first such attempt. Then, USENET followed with a little better access to the web, in order to support newsgroups of common interests (like using messages bases and NNTP). The gopher system improved on these capabilities a bit with menu-driven access (like Menu of Menu of ...). Then, the World Wide Web (www) was developed at Cern in Switzerland, to access massive amounts of Physics information. Thanks to Moin Andriessen and his program, MOLAIC, the web degenerated into THE WEB. A complete information system with links, to permit EASY jumping from ideas to words to pictures to sounds ... Now, Cordell's Theorem, that **complexness** is tantamount to **incompleteness**, is surely applicable here, as there is little consistency in the NET.

LYNX is the program, used to access the web from a shell account. It runs on the Internet computer and furnishes all the above words and ideas of the web.

In that what it does, we presume, that we are looking at the UNIX prompt, "T", on our screen, CRT, or monitor. If you simply type "lynx" and press ENTER, then you should get the banner for your local Internet system, that you are now using. In order to get access to somebody else's site, you have to type their user-name@computer-name, after typing "lynx". Of course, it is important to replace "lynx" from "user-name@computer-name" (by space).

The above procedure should result in any site's banner and/or first menu.

## TALK

The talk facility is implemented by the UNIX program, "talk".

Once at the same as SOL. BBS in TALK mode as in TELNET mode. Some people refer to this interchange of ASCII information as CHAT mode. The other person needs a talk facility, which is compatible with the UNIX

"talk" program. It also helps, that they are at the computer, addressed on the Internet. )

Programs for talk, which are compatible with UNIX "talk", are available on the Internet for download at no cost, using instructions by ENTER the following line: talk user-name@computer-name

In order to connect (for free) to the person, using user-name "user-name" at the computer "computer-name".

If the person is **there** and **busy**, then he or she will be paged and asked to respond with a like talk command, using our user-name and computer-name. Connection follows, and you can both begin talking.

If the person is **there** and **busy**, then (Ringing your party again) will appear on our screen every ten seconds till either connection is established or we press "C". Before we try to talk to someone, using the talk facility, always "finger" them with the line:

finger user-name@computer-name

The information from finger should tell us, whether the person is logged-in and willing to talk.

The conversation can be terminated, when someone hits "C".

Then, the UNIX prompt, "T", escapes:

Then an like FINGER phone call, all over the world!

## INTERNET RELAY CHAT

This is an alternate TALK facility, talk, talk, talk, ... talk. Once on board, everything you type is printed to everyone else's screen, and you see everything typed by everyone else!

Private messages, can be sent and/or received to/from any on-line user. For a list of the thousands of users, online, type LIST.

Anytime, in order to access this facility, get the UNIX prompt, "T", on the screen, and ENTER "irc".

My local access is to EFNET, which has users from over sixteen countries (foreign languages!).

For example, there is a guy from downtown Bologna, Yugoslavia, broadcasting an student sentence there. He uses an no channel. Also, some guy is listed as "volunteer", which is my left name. Wonder what's on his mind! Most exchange is in English, but I saw some Spanish lingo in the LIST.

## MULTI-USER DUNGEONS

A MUD is a game program. No, it's much more, since it provides a game environment among several players. That's how made are all the same. What's are all different, by providing different environments, relating the players differently. You are going to have to ask your friends, about which ones to choose.

## HINTS

Three hints will make life a lot easier at the keyboard of our BBS's, when accessing the Internet.

1. Get the UNIX prompt, "T", onto the screen. Then, ENTER the line:

setty crsr "H"

This will set the description of our TTY, to accept the 2568 DDLITE of CAP-SHIFT "H", whereas the UNIX system is looking for a DEL character, such as generated by DELETE on my APPLE II-C.



the opposite end of the required CENTRONICS plug. Take your time (not fit often), and don't make the hole too large.

Since my QL's components are needed inside a salvaged PC clone case, my old style, MIRACLE parallel interface can now rest near the back of the case (on the inside) out of harm's way with the 15-pin connector firmly attached to the rear of the case using its vendable spring intended for this type of connection.

I can now enjoy ANY LENGTH of my "standard" IBM printer interface, cable to complete the connection of

my QL to my printer (only IBM-type parallel printer cables tend to be much cheaper than a CENTRONICS-to-CENTRONICS cable of equal length, and certainly, easier to find as a store).

With a little effort on your part, you can add the same flexibility and durability to your MIRACLE parallel printer interface.

HAFFY TRAILS,  
AND-COMPUTING, TO YOU.

## QLUTter\_BAS

by Al Fong

Utility programs vary widely in functionality. Some utility programs are single task while others are multi-task. Some simply deal with file handling while others deal more directly with the storage medium. QLUTter\_BAS is a simple, yet flexible, sophisticated front-end and utility program designed to help you maintain the files of your QL's various storage media.

QLUTter can be used to EXECUTE a program, COPY a file from any valid medium to another, DELETE files, PRINT files, FORMAT media, or VIEW a file's contents. QLUTter can handle over 400 files offering a multi-screen, display. QLUTter's only system requirement is that the storage media can not be write-protected.

QLUTter\_BAS can be compiled and used within QRAM or TASKMASTER.

(Key) INPUT:

The primary utilities are accessed by the appropriate FUNCTION key indicated in the legend at the top of the screen. The specific file is selected by keying the (numbered) which precedes the filename.

The principle key inputs are as follows:

- (esc) QUIT QUITs procedure / program
- F1 COPY Copies files from any drive to any other
- F2 de-FILE Selectively DELETes a file from a drive
- F3 HARD-COPY LISTS programs / PRINTs ASCII files
- F4 FORMAT FORMATS a medium in any drive
- F5 pre-VIEW Views a file's contents
- ( ) expanded prefix selects the FLIST\_map

The "FLIST\_map" file is created by the program to keep track of the contents of the medium. The "FLIST\_map" file can be IMPORTed into Quil to provide a formatted, hardcopy record of what is on each medium.

### SELECT\_DEVICE '0'

PRESSING '0' (esc) accesses the SELECT\_DEVICE facility without going through the QUIT sequence. If you simply wish to change from '0p1' to '0p1', then you do not have to use the SELECT\_DEVICE sequence.

If you have immediate access to '0p1', and simply wish to access '0p1', then simply use the right cursor key.

Similarly, if you have immediate access to '0p1', and simply wish to access '0p1', then simply use the left cursor key.

If you wish to access a device other than

'0p1', View1, View2, ..., then press '0p0'. In addition, you may use:

- 'r' for '0p1'
- 'w' for '0p2'
- 't' for '0p3'
- 'f' for '0p4'
- 'w' for '0p5'

To use the '0p0' device, first press '0p0', then enter the three letter "name" of the device, then press the ENTER key, and then the number of the device, followed by pressing the ENTER key.

To access '0p1', down '0p1' via the cursor keys, you must use a 'hold right cursor' key combination.

To access '0p2' from '0p1', via the cursor keys, you must use a 'hold left cursor' key combination.

### (shift)Function Key

A 'shift' (Function Key) combination MAY be used whenever a screen display is changed instead of SELECT\_DEVICE. Thus, if you have a keyboard with two function keys, you may use F8 for a new source disk in the COPY utility; F7 for de-FILE, and so on.

### CHANGE SERIAL ('')

If your printer is attached to SERal 2 or you want to send the file over SERal 2 (no guarantee for some reason, then you can "toggle" this option by PRESSing the double quote (shift ') key after you have accessed the HARD-COPY routine.

### COPY... (F1)

QLUTter allows for selective COPYING of files from (any source disk/device) on your QL to any other destination medium on your QL. For example, you can copy from '0p1' to '0p1', from '0p1' to '0p2', or any other source/destination combination you may choose.

When you access the facility, you will see a FLASHING CURSOR over the top of the screen. You must respond to it by PRESSing the ENTER key for the DEFAULT (i.e., '0p1' for '0p1', '0p1' for '0p2', or even - the DEFAULT device will always be a file storage medium), or 'r', 'w', 't', 'f', or 'w' (as shown), and then ENTER to indicate your choice.

For SOURCE drives whose numerical value is greater than 7 the DEFAULT DESTINATION number will be one less than the drive number being accessed.

If you select '0' (OTHER) as your choice, you can input a single letter for standard devices, otherwise for non-

standard devices such as on a NETWORK you must INPUT three valid letters indicating a device in your system, and then PRESS the ENTER key followed by the number of the destination device, and the the ENTER key again. This will be the TEMPORARY DEFAULT device until you exit the utility.

### de-FILE .. [F2]

"Delete-FILE" allows for an alternative method of un-cluttering your data. Use the pre-VIEW utility (F3) to scan the file if you are uncertain about its contents. You will be asked to VERIFY (Y/N) prior to the DELETION.

### HARD-COPY .. [F3]

"HARD-COPY" allows you to send the selected file to your printer.

QUILL recognizes Quill's ".doc" prefix and will generate roughly formatted output.

Because QUILL recognizes some CONTROL CODES, and because SuperBASIC LISTINGs do not have LIVE\_FEEDs, the hardcopy output of SuperBASIC programs will be difficult to read.

If you want a hardcopy LISTING of any type, then it is recommended that you last IMPORT SuperBASIC/Archivists programs into Quill (you will have to add a three letter extension to the name of the file whose name cannot be longer than eight characters) and generated an appropriate ".doc" file by SAVING the IMPORTed program.

Output can be sent to either SERIAL port by toggling the double quote key.

### FORMAT .. [F4]

"FORMAting" can be done on any standard medium, but, exclusion has been made for "win" devices to prevent unintended accidents.

If you select the wrong device, the enter a name LONGER THAN 10 (ten) characters, and this will allow you to proceed or to escape.

### pre-VIEW .. [F5]

The "pre-VIEW" function allows you to view the raw contents of a file without having to LOAD it. SuperBASIC programs will appear as a LISTING; machine code will be mostly intelligible, non-ASCII characters, and, a Quill .doc will be displayed with breaks between paragraphs to make reading the file easier (in raw notation, the display will show after the header and the file contents will not variable).

### THE LISTING

The QUILLer\_RAS is actually a stripped version of an older version of the QUILLer SuperBASIC source program.

You can get a sense of how the program shows, non-specific functions by comparing the m/s/tp/tp/dk/ PROCDoc's. For example, you could change the "FORMAT" utility to an "UNZIP" utility by having the 'd' PROCDoc name the 'm/s' PROCDoc with the exception that the entire line would read something like the following:

```
if lra then EXEC W runt_util,
**Add=dk" _ &ZP%) to km(ZpZ)-4
```

where the unzip program has been previously located in RAME.

Of course, before attempting modifications to the program, you should use the program as it is LISTED.

ERROR handling is problematic and if you find the program hangs (as on a bad medium) then you may want to eliminate the "WHEN ERROR" statements from the 'm/tp/tp', and 'tp' PROCDoc's.

Because the QUILLer\_RAS LISTING now exists as a stripped version of the QUILLer utility, many of the PROCDoc names may seem cryptic. Despite what it says in some computer manuals, the length of the PROCDoc names, string names, and variable names does affect the ultimate use of a compiled program.

In lieu of REMarks, please note the following explanations for the program's PROCDoc's:

PROCDoc	FUNCTION	LINE NUMBER
ss	on window	150
ms	on-at menu	160
years	years-on-no options	200
rs	loop	240
ws	wrong key message	260
lp	invalid drive message	370
dt	duplicate name message	400
lmsg	invalid medium message	380
nc	escape message	400
pc	press key message	410
clpa	clear partial screen	430
clpa	"	440
clpa	"	450
clpa	"	460
ocls	press a clear screen	480
ocls	cls	500
t	top menu bar	520
as	access device	540
aw	show device	560
fs	dynamic file name(s)	720
fs	end of menu screen	730
end	bottom of menu screen	800
rs	redirect (pseudo loop)	820
rs	"	830
rs	"	840
ph	keypress	860
h3	keypress monitor	910
ma	main menu / EXEC_W	1170
so	COPY utility	1230
sr	DELETE utility	1390
sd	PRINT utility	1480
rf	FORMAT utility	1580
rff	" subrotation	1610
other	"	1630
test	"	1610
keys	keypress monitor	2030
ls	VIEW utility	2100
ls	" subrotation	2110
ls	" subrotation	2130
ls	" subrotation	2150
lss	COMMAND_BAR	2510
ss	"	2520
cl	"	2630
ss	keypress monitor	2660
pick	TAB/tab/cr-TAB	2610
move	move command strip	2670
move	"	2630
st	change device	2730
mov	Read Utility	3040

Complete commands such as LIVE are not used since BLOCK shows to the screen much faster and in a more











page, where it types the current page number, before continuing on to the next page. Should the paper be moved up or down in the printer carriage, we can adjust this in Daisy, by adjusting the number of lines to page and not pressing **END**. The current page number can be changed, by pressing **END** and **END** (PAGE) back to the FUNCTION menu.

At the FM, **FF** causes the printer to skip a line, while updating the line count, as shown previously. **FF** at the FM is supposed to Print out the text on the line and on optional address for lines, which is entered on-line. Most of the error data from **INTERVIEW** log, had this feature implemented. However, see the following article on my new and improved version!

At the FM of Bill's original version, we Sign OFF, by pressing the colon symbol. The printer springs to life, by feeding a couple of lines, before printing "Secondly," and "Bill Jones" after two more line feeds! Lastly, it skips down to page bottom, types the current page number and continues on to the next page.

Next time, we talk about the last entry, **+**, in the FUNCTION menu. This calls up the all-important Style Menu, where we select the print class, for use by our program.

Well, guys, we LOADED UP with all the Daisy menu, and then LOAD the AUTOMATIC file of our new and improved daisy disk. This brings up a MASS MENU of compatible word processors, which we have broken out and optimized from Bill Jones' Daisy menu.

Let's punch **5** and LOAD down! Everything we try for the typewriter mode results in a **RECEIPT** only. This is because "other" screen only as a gateway to further Data Base Management Systems, which are also part of Bill's amazing daisy menu!

Then... we punch **2** at the menu screen, and LOAD (F1)!

Now, when we punch **1** at the FUNCTION menu, the cursor menu comes right up, ready to build a paragraph of text, contained in it when we escape back to the FM, we only get **RECEIPT** upon pressing **1**, **2**, or **4**. In other words, we can't Print a Header, access the FORM Menu, or Print the Typing, contained in it, since **INTERVIEW** doesn't have any printer drivers. Likewise we only get **RECEIPT** by selecting Page Management, Line Space, Letterhead, Sign OFF, Page End, and Style Menu.

Now, if we punch **1** at the menu menu, and LOAD (F0)MM, our banner changes right up, asking that we initialize the functions **A**, **2**, **1**, **y**, and **y** result in daisy's FUNCTION menu. But, upon pressing **1**, we only get a **RECEIPT**, since **PC-MMM** has no input facilities. However, we can Print a Header at **2**, since the CAPTION is input, on-line. Only 40 characters, since we use CHARACTERS and EXPLANATIONS print for captions in **PC-MMM**.

When we punch **3** at the FM, we go straight to the FORM menu, where we can allow for linehead stationary or to access the Print Style Menu <F>.

Now, when we punch **4** at the FUNCTION menu, we get a menu! Moreover, let us first see and see "This is a TEST!"



Then, when we press FM, and punch **4** at the FM, the printer line also moves and prints per typing with the current print style, all already indicated as on, according to our last specification when installing the printer.

We can touch **5** at the FM and **5** at the FORM menu, which brings up **MAIL MANAGEMENT**. Here we can, on number the current page, or we can also FORCE the end of a page by letter skipping lines down to the bottom OK changing the number of lines to page end, where we type the current page number and continue on to the next page.

A touch of **5** at the FM causes the printer to find a line, whereas a touch of **5** prints out **CMS** current letterhead, with or without an (optional) address block. The print class used is **PCA**.

Let us press **6** at the FORM menu. We are immediately asked whether we want a with or without address. The address option also lists the current time, date, etc., from our **DALLAS** Smartwatch below our telephone number!

Now Sign OFF And Page End with the same as in the original version of daisy by Bill Jones.

Now, **INTERVIEW** has potentially better features of Daisy, printed into a **RECEIPT** only. While the leaves this room, in which to interview, we can easily handle typewriter mode as all inputting is done on-line!

So, let us punch **5** at the menu menu and LOAD (F0)MM. Our banner changes up, we initialize the printer and, the FUNCTION menu comes onto the screen.

By pressing **1** at the FM, we can use the current address to construct a list. We still continue a paragraph of information. Back at the FM, we touch **4**, in order that the printer immediately list us on the page of typing, using the current print style.

By punching **2** at the FM, we INPUT a CAPTION for immediate printout, entered on the page enlarged and implemented.

We go the FORM menu with a punch of **3** at the FM. This access the Print Style Menu with another punch of **3**. This also allows for the presence of linehead stationary etc.

As shown, if cause the printer to put out whatever is currently on it.

We can punch **5** at the FM and **5** at the OFFICE menu, this getting to **MAIL MANAGEMENT**, where everything works as shown with **PC-MMM**. In fact, everything works now **PC-MMM** menu in **INTERVIEW**, the menu as in **PC-MMM** with the addition of **FF**, the all-important ability to create it.

So if we can ever get some more memory through bank swapping or something, then we can expand **INTERVIEW** even more, to include any remaining five capabilities of Bill Jones' Daisy mode of word processing.

As it is, **INTERVIEW** is as good as Bill's software for typewriter mode. In fact, it is better, as we don't have to wait for any answer to LOAD or addresses in **RECEIPT**. Anyway, next time's discussion of the Style Menu, should terminate our consideration of Daisy.

## 7 Pseudo Hires Video Hardware

The pseudo hires graphics video display generator consists of the Z80 CPU, ROM, RAM and a large part of the ZX-01 Socker logic chip (ZLA) as shown in Fig. 3 with all relevant connections including the address decoder. For simplicity, only the ZX RAM section is shown.



Fig. 3 Pseudo Hires Graphics Display Circuit

The only difference between pseudo hires and Socker character hardware is the ZLA LCHNR and the use of the INT input. Most pseudo hires code roms do not use INT and the ZLA LCHNR is used to save every horizontal line. The exception is Zocker which uses INT and makes dual use of the I register as INT mode 3 as part of the Z8T vector address when interrupted at the end of each horizontal line and as refresh rate as a ROM pointer table pointer.

## 8 True Hires Video Hardware

The portion of the Z801 hardware required for true hires graphics display consists of Z80 CPU, the RAM, the video shift register and the scan driver of the ZLA, as shown in Fig. 4 with all relevant connections. Again the ZX RAM as shown, for simplicity but applies to larger RAM designs as well. If a 32K RAMPACK is used, it must be slightly modified, as will be shown later, to enable the data output during RSTN time as required for this hires display method.



Fig. 4 True Hires Character Mode Display Circuit

With the exception of RAMPACK which enables 32K access to a Z80, all hires programs need a 32K hires graphics RAM chip. The RAM for hires programs can be implemented by modifying a standard 32K RAMPACK with a couple of additional gates.

The RAMPACK is modified to enable the data output as RSTN time by closing the RD and RSTN lines at the edge connector and installing only two protection diodes and a 47K pull-up resistor.

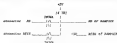


Fig. 5 RAM PACK MODIFICATION FOR CPU RAM

## 8.001 CHARACTER DISPLAY TIMING

As the Socker Z80 character display hardware shown in Fig. 3 is required to generate character mode 3, use of 3 characters, the hardware logic must when the data latch one at the end of the scan line (horizontal) and the video mode jumps to the Z801 video mode 300. The hardware in the Z801 ZLA takes control when any specific character shifts Z80 ZLA high switch input one or 4 inputs per line. The video data is loaded 1/2 frame after each step.

1. The ZLA loads the character code into a shift register in the ZLA.
2. The ZLA loads the refresh rate.
3. The CPU generates the scan as RSTN.
4. The ZLA generates part of the ROM pointer logic address and the Z80 CPU generates the pointer table pointer with the I register.
5. The pointer table is loaded into the ZLA at the beginning.

One could say that the ZLA is fairly complex with ROMs substituted for each character code. Just ROM address is 4 CPU clock cycles at 0.52 MHz or 4 years at 0.52 MHz for ZLA video and output.



Fig. 6 CPU CHARACTER DISPLAY TIMING

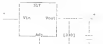
1. Each character code (CHNR) byte as DFLS is addressed by the CPU PC on the rising edge T2 data is loaded from DFLS into the ZLA, but 0-3 into a 4 bit ZLA address latch while bit 4 is loaded into 1 bit ZLA video output latch.
2. On the falling edge of T3, the ZLA forces all CPU data bus to zero.
3. On the rising edge of T3 the low data bus are interpreted by the CPU as a NOP instruction.
4. During T04, the CPU executes the cycle, and ROM address bus are presented with I register on A0-A3, the ZLA 4 bit character code register on A4-A7, and the ZLA mode 3 bus counter on line A8-A9, 5.
5. On the falling edge of T4, pointer data from the ROM is loaded into ZLA video shift register and 4 video points are shifted out at a 300Hz.
6. If character code bit 7 latch in ZLA equals 1, video points are inverted.
7. The CPU increments the program counter and fetches the next character code.
8. This repeats until a NALT (Newline) is fetched.
9. RSTN operates but it is 1 and as data bus connected (no NOP).
10. The ZLA generates a HSYNC pulse independent of the CPU timing and the ZLA LCHNR is incremented.
11. The Z80 CPU continues to generate NOPs, incrementing register R and samples the INT input on the rising edge of each T4.
12. When A0 which is hardwired to INT goes low during refresh rate (for 4 of the R reg = 0), the Z80 executes the INT routine (below Z80).
13. CPU returns from INT and resumes "execution" of DFLS CHNR codes.
14. The pointer signals 150 timer and then INT routine returns to the main video routine, turns on the ROM generator and resumes back to the application code.

**TS-2050 Modem Compatible Serial I/F** by Will East

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

In response to Don's request on page 6 of *2DR QLow* to unassemble the subroutine in the final issue of *UPDATE*, I replied: "I had already done that - it was a challenge and I recognized the problem. Attached is the unassembled version. The problem is one of proportional versus non-proportional fees."

For example, from page 8  
 Downer, *Don't* (non-contraction)



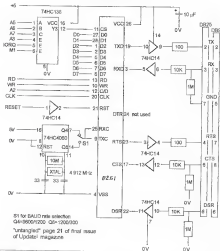
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- 8 QuadTrek - Spring/83 through Winter/86
- 1 SQS Syntax Quarterly Vol.2 #1
- 26 SLIM August/84 thru July/85
- 1 Sync (Special issue) 1982?
- 6 Sync Vol.3 #3 through Vol.4 #3
- 12 Synthesis News Vol.2 #1 through Vol.3 #6
- 1 " " " (Catalog) Vol.1 June/83 thru June/84
- 6 Synthes Vol.3 #3 and Vol.5 #7 thru #11
- 17 Time Design Vol.#3, #5, Vol.3 #8, #9, #6 Vol.3 #11 Through Vol.4 #6
- 8 Times Sinclair User Vol.1 #1 through #7
- 21 T/S Sinclair Issue #1 through #21
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# QL Today

## What is it?

Like QL World and IQLR before, QL Today is a general magazine for anybody who has a QL or compatible. It will contain listings of events, news, reviews of hardware and software, meeting reports, articles on programming, explanations of computing systems, features of QL channel. We are attempting to copy on from where IQLR fell off but will improve things in the process. Most of all, though, we need plenty of feedback from readers so that the magazine can provide what you actually want.

## Who is doing it?

QL Today is being published by Jochem Marx Software. Jochem Marx has been supplying software for the QL for several years and has built up a good reputation for quality and fair trading. The representative in Britain is Muscle Systems Ltd, who take subscriptions and do the distribution. The articles in the magazine are written by a number of prominent QLers and the editor is Dilwyn Jones.

## What happened to IQLR?

Boh Dy suffered another heat attack and has decided to cease producing IQLR. It also appears that it was not profitable for him to carry on doing it partly owing to high cost of sending the magazine from USA to Europe where most QL users are.

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If you subscribed through Muscle Systems (i.e. you were issued an invoice) or through Jochem Marx Software then you will get the remainder of QL Today issues free of charge that you are owed by IQLR. If you have an outstanding subscription to IQLR purchased through a different channel then tell us - you will be eligible for 1/2 price issues to substitute the IQLRs you are owed provided you take out a subscription starting with the May/June 96 issue.

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